88-05359/

agri-fax Alberta AGRICULTURE

Agdex 142/33-14
Revised November, 1987

Varietal Description of Bellevue Field Pea

Origin and breeding

Bellevue, tested as Line 22, was developed from the cross Van Wavern Lorka Line 188/MP 39 made in 1976. Five F_2-derived F_8 lines, selected for seed yield and smooth, round seeds, were entered in a replicated yield trial in 1982 at two locations. One hundred random F_7 plants of line 22 were threshed separately in 1983. Plant rows were eliminated on the basis of variable height and maturity in 1984 and 1985, and of flattened seeds in 1985. Eight-two F_9 plant rows were increased and bulked to produce breeder seed of Bellevue in 1985.

Varietal characteristics:

Plant characteristics:

Vines: medium length, shorter than Trapper
Leaves: medium sized; similar to Trapper
Flowers: white
Pods: medium sized; similar to Trapper
Maturity: medium late; later than Trapper
Disease reaction: susceptible to Ascochyta blight (*Mycosphaerella pinodes*), Septoria leaf blotch (*Septoria pisi*) and powdery mildew (*Erysiphe poligoni*)

Seed characteristics:

Color: yellow
Size: medium
Shape: round
Seed coat: smooth; more durable than Trapper; good tolerance of mechanical damage
Cooking quality: fair, inferior to Trapper

Performance and adaptation

Bellevue was tested in cooperative tests across Canada for three years, 1983 to 1985, and was found to be one of the highest yielding varieties. It averaged yields 15 per cent higher than Century and 14 per cent higher than trapper in these tests. It is about six days later maturing than Century and Trapper. Bellevue has smooth, round seeds whose weight is intermediate between Trapper and Century. Vine length is slightly shorter than Trapper and much shorter than Century. Bellevue's cooking quality is not as high as that of Century or Trapper.

Maintenance of breeder seed: University of Saskatchewan, Saskatoon, Saskatchewan.

Canadian distributor: SeCan Association

Recommended by: Expert Committees on Grain Breeding and Grain Quality

For further information contact:
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Copies of this and related publications may be obtained from the Print Media Branch, Alberta Agriculture, 7000 - 113 Street, Edmonton T6H 5T6 or Alberta Agriculture's District Offices.

Experimental data:

Table 1: Yield in kg/ha of Bellevue and Check Varieties, Cooperative Field Pea Tests, 1983-1985

Year	Variety	Mord*	Port	Bran	Regi	InHd	Sask	Laco	Ayls	Lash	Melf	Broo**	Western Mean	NewL	Pint	LaPo	Overall Mean
1983	Century	1990	1623	1932	1783	1871	1867	3664	—	—	—	3006	2217	2579	1824	2433	2234
	Tara	2234	1772	2101	2017	2586	1870	4882	—	—	—	3275	2592	3008	1967	2540	2568
	Trapper	2021	1433	2015	1865	2246	1711	3289	—	—	—	2492	2134	2596	1809	2532	2183
	Lenca	2186	1737	2053	2058	2404	1838	4415	—	—	—	3468	2520	2810	2125	2705	2527
	Triumph	1928	1592	1840	2130	2095	2060	4107	—	—	—	3406	2395	2866	2105	2048	2380
	Bellevue	2230	1559	2252	2260	2564	2059	3552	—	—	—	3274	2469	3420	2527	2614	2574
1984	Century	2504	2463	1177	1072	1106	947	—	973	1505	—	2220	1552	—	1902	1759	1603
	Tara	2946	2450	1571	1320	1259	1310	—	925	1507	—	2686	1778	—	2536	2163	1882
	Trapper	2561	2267	1443	928	1049	1266	—	1192	1809	—	2396	1641	—	2183	2259	1746
	Lenca	2724	2198	1403	1067	1153	992	—	1404	1061	—	2299	1589	—	2509	2265	1734
	Triumph	2876	2409	1852	1364	1448	1625	—	1686	1517	—	2684	1818	—	2480	2211	1914
	Bellevue	2576	2452	1704	1220	1382	1237	—	1386	1418	—	3243	1846	—	1756	2259	1876
1985	Century	2371	2295	—	1747	2047	2139	—	—	—	2332	3376	2155	1465	—	2962	2170
	Tara	2568	2738	—	2160	1231	2502	—	—	—	3011	3563	2368	1463	—	3469	2393
	Trapper	2339	1986	—	1305	2639	1461	—	—	—	2774	3194	2084	1527	—	2699	2091
	Lenca	2566	2439	—	1840	2420	2223	—	—	—	3101	3741	2432	2203	—	3772	2571
	Triumph	2387	2301	—	2092	1057	2084	—	—	—	2081	4202	2000	1242	—	3228	2059
	Bellevue	2690	2225	—	2542	2428	2087	—	—	—	3210	3322	2530	2139	—	2586	2488
Mean	Century	2288	2127	—	1534	1675	1651	—	—	—	—	2867	1975	—	—	2385	1986
	Tara	2583	2320	—	1833	1692	1894	—	—	—	—	3175	2246	—	—	2724	2270
	Trapper	2307	1895	—	1384	1978	1480	—	—	—	—	2694	1953	—	—	2497	1999
	Lenca	2492	2125	—	1655	1993	1684	—	—	—	—	3170	2180	—	—	2914	2248
	Triumph	2397	2101	—	1862	1534	1723	—	—	—	—	3431	2119	—	—	2496	2124
	Bellevue	2499	2079	—	2007	2125	1794	—	—	—	—	3280	2282	—	—	2487	2295

* Locations: Morden, Portage-La-Prairie, Brandon, Regina, Indian Head, Saskatoon, Melfort, Lacombe, Brooks, Aylsham, Lashburn, New Liskeard, Pintendre and La Pocatiere

** irrigated, not included in means for 1985

Table 2: Quality and Performance of Bellevue and Check Varieties, Cooperative Field Pea Tests, 1983-1985.

Year	Variety	Yield (kg/ha)	1000-seed weight (g)	Days to mature	Vine Length (cm)	Cooking Quality			Protein (%)
						Color*	Granulation*	Viscosity**	
1983	Century	2234	240	93	98	2.4	2.3	10.6	23.4
	Tara	2568	208	97	96	2.6	2.2	13.8	23.3
	Trapper	2183	149	94	93	2.8	2.3	14.7	24.3
	Lenca	2527	215	96	98	2.7	2.7	13.6	24.3
	Triumph	2380	315	100	70	2.9	2.6	15.1	24.5
	Bellevue	2574	175	101	84	3.2	2.8	15.0	23.7
1984	Century	1603	228	92	104	2.6	2.6	14.0	23.7
	Tara	1882	200	94	101	2.8	2.7	16.1	23.2
	Trapper	1746	139	92	97	2.9	2.6	16.8	23.9
	Lenca	1734	205	92	99	2.7	2.9	15.1	23.9
	Triumph	1914	316	96	69	2.8	2.7	16.2	23.6
	Bellevue	1876	175	97	92	3.3	3.1	19.2	24.0
1985	Century	2170	251	111	109	2.6	2.3	15.5	22.1
	Tara	2393	220	111	104	2.9	2.4	18.9	21.1
	Trapper	2091	156	108	97	2.9	2.3	19.3	22.3
	Lenca	2571	228	111	109	2.9	2.6	19.5	22.5
	Triumph	2059	332	113	77	3.1	2.9	19.5	22.6
	Bellevue	2488	191	116	102	3.4	3.0	21.5	21.2
Mean	Century	1986	239	97	103	2.5	2.4	13.1	23.1
	Tara	2270	208	100	99	2.8	2.4	16.1	22.7
	Trapper	1999	147	97	95	2.8	2.4	16.7	23.6
	Lenca	2248	215	98	101	2.8	2.7	15.9	23.6
	Triumph	2124	320	102	72	3.0	2.7	16.8	23.7
	Bellevue	2295	179	103	91	3.3	2.9	18.3	23.1

* 1-5 scale where 1 = very good, 2 = good, 3 = average, 4 = fair and 5 = poor
** 1-24 scale where 1 = high and 24 = low.

Table 3: Disease Reaction of Bellevue and Check Varieties, Cooperative Field Pea Tests, 1983-1985.

Year	Variety	Ascochyta Blight (1-9)*	Powdery Mildew (1-9)	Foot Rot (1-9)	Septoria Leaf Blotch (1-9)
1983	Century	7.9	7.2	4.5	2.1
	Tara	7.2	1.0	3.9	1.2
	Trapper	6.7	5.8	3.9	0.6
	Bellevue	6.4	-	2.7	0.3
1984	Century	5.9	3.9	—	5.5
	Tara	5.5	1.0	—	6.2
	Trapper	5.6	4.7	—	5.6
	Bellevue	5.7	4.7	—	5.9
1985	Century	7.7	6.2	—	—
	Tara	7.0	1.0	—	—
	Trapper	7.5	6.7	—	—
	Bellevue	7.0	7.5	—	—

* 1 = best resistance